

**IN THE UNITED STATES DISTRICT COURT FOR THE
DISTRICT OF MARYLAND**

CHARLES COUNTY, MARYLAND,
Plaintiff,

v.

3M CO.; BUCKEYE FIRE EQUIPMENT
CO.; CHEMGUARD, INC.; TYCO FIRE
PRODUCTS LP; AGC CHEMICALS
AMERICAS, INC.; ARCHROMA U.S.,
INC.; ARKEMA, INC.; BASF CORP.;
CHEMDESIGN PRODUCTS, INC.;
CHEMICALS INCORPORATED; THE
CHEMOURS CO.; THE CHEMOURS CO.
FC, LLC; CLARIANT CORP.;
CORTEVA, INC.; DUPONT DE
NEMOURS, INC.; EIDP, INC., *formerly*
known as E. I. DU PONT DE NEMOURS
AND COMPANY; DEEPWATER
CHEMICALS, INC.; DYNAX CORP.;
CARRIER FIRE & SECURITY
AMERICAS LLC, *formerly known as*
CARRIER FIRE & SECURITY
AMERICAS CORPORATION; RTX
CORPORATION, *formerly known as*
RAYTHEON TECHNOLOGIES
CORPORATION; CARRIER GLOBAL
CORPORATION, *FORMERLY KNOWN*
AS CARRIER SOLUTIONS
CORPORATION; NATION FORD
CHEMICAL CO.; AND DOES 1-100,
INCLUSIVE,
Defendants.

No.

COMPLAINT WITH JURY DEMAND

COMPLAINT

Plaintiff Charles County (“Plaintiff” or the “County”), by and through its undersigned counsel, brings this action against Defendants 3M Co., Buckeye Fire Equipment Co., Chemguard, Inc., Tyco Fire Products LP, AGC Chemicals Americas, Inc., Archroma U.S., Inc., Arkema, Inc., BASF Corp., Chemdesign Products, Inc., Chemicals Incorporated, The Chemours Co., The Chemours Co. FC, LLC, Clariant Corp., Corteva, Inc., DuPont De Nemours, Inc., EIDP, Inc., *formerly known as* E. I. du Pont de Nemours and Company, Deepwater Chemicals, Inc., Dynax Corp., Carrier Fire & Security Americas LLC, *formerly known as* Carrier Fire & Security Americas Corporation, RTX Corporation, *formerly known as* Raytheon Technologies Corporation, Carrier Global Corporation, *formerly known as* Carrier Solutions Corporation, Nation Ford Chemical Co., and Does 1-100, inclusive, (collectively, “Defendants”), and alleges as follows:

I. NATURE OF THE ACTION

1. Per- and polyfluoroalkyl substances (“PFAS”) are ubiquitous, highly toxic environmental contaminants present in Charles County water systems and natural resources. Exposure to PFAS chemicals is known to cause serious health effects, such as cancer, liver, thyroid, and kidney disease, immune system disruption, and pregnancy-induced hypertension, among other ailments. Due to their uniquely strong chemical bonds, PFAS compounds resist environmental degradation and can persist indefinitely once introduced into waters, soils, and other resources. They are often referred to as “forever chemicals” because they do not break down. PFAS compounds are highly soluble and easily migrate in waterways and aquifers to spread contamination far and wide. When consumed, they build up in the tissue of animals (and humans). In this way, PFAS travel up the food chain and cause chronic poisoning, concentrating to

dangerous levels in predators and animals at the top of the food chain, including humans, even when acute exposure levels are slight. Their physical and chemical properties make PFAS uniquely challenging, and costly, to mitigate, eliminate, reduce, or control in the environment, as the chemicals continue to circulate through groundwater systems, surface water systems, municipal stormwater and wastewater systems, and the water cycle. PFAS represent a complex, long-term environmental hazard to the County and population.

2. Approximately 167,000 people live in Charles County. The County Department of Public Works (“DPW”) Utilities Division provides drinking water to over 90,000 people, through over 33,000 residential and business service connections.

3. The Charles County DPW Utilities Division operates sixteen Community Water Systems (“CWS”), all sourcing drinking water from ground water, and one of them, the Waldorf Community System, supplementing its ground water with purchases of surface water from the Washington Suburban Sanitary Commission (“WSSC”).

4. Each CWS owns from 1 to 18 wells with the majority sourcing water from the Patapsco Aquifer (Upper and Lower), followed by the Magothy and Patuxent Aquifers.

5. The County’s Utilities Division also provides sewer and wastewater services to approximately 92,000 people in Charles County. In addition to sewer pipes, manholes and pumping stations, the County owns and operates six wastewater treatment facilities (“WWTF”) including the Mattawoman WWTF, Swan Point WWTF, Bel Alton WWTF, Clifton-on-the-Potomac WWTF, Cobb Island WWTF, and Mt. Carmel Woods WWTF.

6. The largest capacity of these WWTF is the Mattawoman WWTF which discharges to the Potomac River pursuant to a National Pollutant Discharge Elimination System (“NPDES”) permit. Following preliminary PFAS testing in May 2023 which detected PFAS in effluent and

biosolids, the Maryland Department of the Environment (“MDE”) now requires the County to conduct quarterly PFAS testing at Mattawoman as a condition of its NPDES discharge permit.

7. As a home rule code county, Charles County is empowered and authorized pursuant to Maryland law to enact and enforce laws to protect and promote public safety, health, morals, comfort, and welfare, relating to disease prevention, nuisance abatement, waste disposal, storm drainage, county roads, soil erosion, and buildings.

8. Pursuant to Md. Annotated Code, Environment §4-202, the County Commissioners enacted the Stormwater Management Ordinance, which the Planning and Growth Management Department and DPW administer. The Ordinance’s stated purpose is “to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse impacts associated with increased stormwater runoff.” Charles County Code § 274-1.

9. Similarly, to foster the orderly development and use of land and structures through comprehensive planning and zoning control, Charles County enacted a Flood Plain Management Ordinance in order to “secure the public safety, promote health and general welfare, and promote the conservation of natural resources.” Charles County Code § 238-5.

10. In addition, the County operates a Municipal Separate Storm Sewer System (“MS4”) through a permit governing storm water management, and it participates in the implementation of the State’s Chesapeake Bay Agreement, through the State’s Watershed Implementation Plan, which includes efforts to implement stormwater Best Management Practices (“BMPs”) and to meet Total Maximum Daily Load (“TMDL”) targets established by the EPA for nitrogen, phosphorous and sediment.

11. The County has investigated the presence of PFAS contamination in its water

supplies and other public resources and properties under its ownership or management, and continues to conduct monitoring and analysis to protect such resources and to preserve the public health per state rules and guidelines.

12. To date, the Woodley Well of the County's Beantown CWS registered 1.04 parts per trillion ('ppt') of PFNA.

13. Substantial PFAS detections are present in the effluent and biosolids from Mattawoman WWTF. Effluent from the WWTF in 2023 tested 7.91 ppt for PFOA, 2.80 ppt for PFOS, 8.74 ppt for PFBS, 3.61 ppt for PFHxS, 14.7 ppt for PFHxA, and 2.30 ppt for PFHpA. Similarly, biosolids produced by Mattawoman WWTF tested 3.37 ppt for PFOS, and 3.63 ppt for PFBA.

14. The County continues to monitor PFOS, PFOA, and other PFAS chemicals in County groundwater and wastewater per state rules and guidelines.

15. Because PFOS, PFOA, and other PFAS compounds are all synthetic industrial compounds that are highly toxic to human and animal health, extremely persistent in the environment, soluble in water and fatty tissue, bioaccumulative, volatile or semi-volatile, and difficult to remediate or remove from natural resources, water supplies, and other environmental media, PFAS contamination or pollution of public resources, natural resources, drinking water supplies, wastewater, stormwater, and other environmental media represents a public health threat that has and will result in significant costs, losses, and damages to the County.

16. Defendants designed, manufactured, marketed, promoted, distributed, supplied, and/or sold PFAS-based aqueous film-forming foam ("AFFF") products, and certain chemical ingredients incorporated into those products, that were used and released in and near Charles County and which now contribute to a serious environmental and public health crisis.

17. AFFFs are specialized firefighting foam products that are intended to be mixed with water and applied to liquid-based fires. AFFF products have been widely used in the Charles County region for decades in training exercises at military and civilian airfields and airports, firefighting training grounds and fire stations, industrial facilities, and other locations, as well as in responding to actual fires.

18. The intended and ordinary use of AFFF products is to spray them into the air and onto the ground, whether in training exercises or in responding to fire events. Environmental contamination is the inevitable result of this intended and ordinary use, absent the taking of specific precautionary measures to guard against the uncontrolled release of PFAS.

19. Defendants knew that these dangerous chemicals would be released into the environment during the ordinary and intended use of their AFFF products, causing harm to the County, its residents, and those within the service area of the County's municipal water systems, among others.

20. Defendants could have warned and instructed the users of their AFFF products on precautionary measures to be taken to prevent or minimize environmental contamination, such as advising that the products must not be used without an effective liner or catch basin or water filtration system capable of removing PFAS.

21. Similarly, Defendants could have warned and instructed regulators and the public about the potential hazards of the ordinary and intended use of their AFFF products, and the need to take steps to prevent extensive environmental contamination as a result thereof. Instead, Defendants concealed their knowledge of such hazards in order to prevent regulation and protect their profits.

22. In addition to providing adequate warnings or instructions, Defendants could have

elected to make different product design decisions in the formulation of their AFFF products. For example, Defendants could have utilized PFAS compounds that are less toxic and less persistent than PFOA/PFOS, and could have utilized entirely non-fluorinated alternative formulations.

23. Indeed, once regulators began to scrutinize PFOA and PFOS, Defendants began to revise their product formulations to reduce or remove PFOA and PFOS, replacing them with different PFAS compounds that Defendants claim are less toxic, less persistent, and less bioaccumulative than PFOA and PFOS. Defendants could have made these changes much earlier than they did.

24. PFAS-free alternatives to Defendants' AFFF products are available. Certain Defendants, such as National Foam, now market AFFF products that they maintain are PFAS-free. And certain Defendants, like 3M, began conducting research on such non-fluorinated alternatives decades ago, but terminated these efforts because the resulting products would not be as profitable.

25. While Defendants reaped massive profits from the production and sale of PFAS-based AFFF products, they saddled Charles County and its residents with the burden of cleaning up the mess the ordinary and intended use of those products inevitably caused.

26. Because Defendants concealed the truth about the human health and environmental impacts of their AFFF products and the PFAS chemistries on which those products are based, and otherwise failed to carry out their duties to prevent harm to the County and its residents, the County did not know of the actual or potential contamination of its resources and properties with dangerous PFAS compounds resulting from the ordinary and intended use and disposal of Defendants' AFFF products.

27. The County is entitled to recover compensatory, consequential, and punitive damages; past, current, and future costs or losses relating to the actual or potential presence of

PFAS traceable to AFFF products in County drinking water supplies, wastewater systems, stormwater and natural resources in and near Charles County; injunctive relief requiring Defendants to abate injured or impaired County resources and properties; and all other relief available under law.

28. This action addresses only PFAS-related injuries attributable to the Defendants as a result of the design, manufacture, marketing, promotion, distribution, supply, sale, use, and/or disposal of AFFF products and AFFF component products. To the extent the County has suffered or may in the future suffer injuries relating to PFAS associated with a different application or other use of PFAS compounds, such claims are not included in this action, may be pursued in a separate action, and are expressly preserved.

II. PARTIES

29. Charles County is a home rule code county, duly organized and existing by virtue of the laws of the State of Maryland.

30. Charles County is governed by its Board of County Commissioners which exercises broad powers to protect the health and welfare of the population, including through exercising broad legislative authority to enact laws affecting only county residents, referred to as “public local law.”

31. Specially enumerated in Maryland statute, “in addition to the other powers granted to code counties, each code county may. . . ,” Md. Code Ann., Local Gov't § 10-102 (b), *inter alia*, “provide for the prevention, abatement, and removal of nuisances,” Md. Code Ann., Local Gov't § 10-328, enact and enforce laws to “protect and promote public safety, health, morals, comfort, and welfare,” relating to roads, waste disposal, soil erosion, and buildings, *id.* § 10-317, and enact and implement storm drainage districts, and tax, finance, construct, maintain and

regulate storm drainage facilities, *id.* § 10-321, as well as govern local land use in part through enactment and implementation of local zoning laws. *Id.* § 10-324.

32. In light of its power as set forth in Maryland law, the County serves in the capacity of *parens patriae* on behalf of its residents insofar as it seeks to protect the health and well-being of its population. The County proceeds in *parens patriae* in this action.

33. In addition, Charles County brings this action in its governmental capacity to provide safe drinking water, wastewater and stormwater services, parks and recreation, and for preserving and protecting the County's natural resources and the public health.

34. The County will continue monitoring, assessing, investigating, and otherwise responding to PFAS contamination issues in its drinking water supplies and other water systems to protect public health.

35. Defendant 3M Company ("3M") is a Delaware corporation with its principal place of business in St. Paul, Minnesota. 3M designed, manufactured, marketed, sold, and/or distributed AFFF products containing or breaking down into PFAS, including PFOS, PFOA, and PFHxS. On information and belief, these 3M products were used and discharged into the environment in and around Charles County.

36. Defendant Buckeye Fire Equipment Co. ("Buckeye") is an Ohio corporation with its principal place of business in Mountain, North Carolina. Buckeye designed, manufactured, marketed, sold, and/or distributed AFFF products containing or breaking down into PFAS. On information and belief, these AFFF products were used and released into the environment in and around Charles County.

37. Defendant Chemguard, Inc. ("Chemguard") is a Texas corporation with its principal place of business in Marinette, Wisconsin. Chemguard designed, manufactured,

marketed, sold, and/or distributed AFFF products containing or breaking down into PFAS. Upon information and belief, these Chemguard products were used and discharged into the environment in and around Charles County.

38. Defendant Tyco Fire Products LP (“Tyco”) is a Delaware limited partnership with its principal place of business in Lansdale, Pennsylvania. Tyco is the parent corporation to Chemguard and successor-in-interest to the Ansul Company (“Ansul”). Tyco designed, manufactured, marketed, sold, and/or distributed AFFF products containing or breaking down into PFAS. Upon information and belief, these Tyco products were used and discharged into the environment in and around Charles County.

39. Defendant AGC Chemicals Americas, Inc. (“AGC”) is a Delaware corporation with its principal place of business in Exton, Pennsylvania. On information and belief, AGC’s fluorosurfactants were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

40. Defendant Archroma U.S., Inc. (“Archroma”) is a Delaware corporation with its principal place of business in Charlotte, North Carolina. On information and belief, Archroma’s fluorosurfactants were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

41. Defendant Arkema, Inc. (“Arkema”) is a Pennsylvania corporation with its principal place of business in King of Prussia, Pennsylvania. On information and belief, Arkema was formerly known as Atochem, Inc. and/or is the successor-in-interest to Atochem, Inc. On information and belief, fluorosurfactants manufactured by Arkema and/or Atochem, Inc. were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

42. Defendant BASF Corp. (“BASF”) is a Delaware corporation with its principal place of business in Florham Park, New Jersey. BASF is a successor-in-interest to Ciba-Geigy Corp. Upon information and belief, fluorosurfactants manufactured by BASF and/or Ciba-Geigy Corporation or Ciba Specialty Chemicals, including those trademarked Lodyne™, were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

43. Defendant ChemDesign Products, Inc. (“ChemDesign”) is a Delaware corporation with its principal place of business in Marinette, Wisconsin. Upon information and belief, fluorosurfactants manufactured by ChemDesign were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

44. Defendant Chemicals Incorporation (“Chem Inc.”) is a Texas corporation with its principal place of business in Baytown, Texas. On information and belief, fluorosurfactants manufactured by Chem Inc. were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

45. Defendant The Chemours Co. is a Delaware corporation with its principal place of business in Wilmington, Delaware. Chemours Co. was previously a subsidiary of Old DuPont (as defined below) and was spun out of Old DuPont into an independent, publicly traded company on July 1, 2015.

46. Defendant The Chemours Co. FC, LLC is a Delaware LLC with its principal place of business in Wilmington, Delaware. Chemours Co. FC, LLC is a wholly-owned subsidiary of Chemours Co.

47. Defendants The Chemours Co. and The Chemours Co. FC, LLC are jointly referred to herein as “Chemours.” Chemours designed, manufactured, marketed, sold, and/or distributed

fluorosurfactants containing or breaking down into PFAS for use in the manufacture of AFFF. On information and belief, Chemours's fluorosurfactants, including those trademarked Capstone™, were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

48. Defendant Clariant Corp. ("Clariant") is a New York corporation with its principal place of business in Charlotte, North Carolina. On information and belief, Clariant's fluorosurfactants were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

49. Defendant Corteva, Inc. is a Delaware corporation with its principal place of business in Wilmington, Delaware.

50. Defendant DuPont de Nemours, Inc. ("New DuPont") is a Delaware corporation with its principal place of business in Wilmington, Delaware.

51. Defendant EIDP, Inc. (formerly known as E. I. du Pont de Nemours and Company) ("Old DuPont") is a Delaware corporation with its headquarters and principal place of business in Wilmington, Delaware.

52. New DuPont, Old DuPont, Chemours, and Corteva, Inc. are referred to collectively as "DuPont." For decades, DuPont manufactured products containing PFAS, including PFOA, which DuPont obtained from 3M. In the early 2000s, after 3M had ceased the manufacture of PFOS and PFOA, DuPont itself began to manufacture PFOA. DuPont designed, manufactured, marketed, sold, and/or distributed fluorosurfactants containing or breaking down into PFAS for use in the manufacture of AFFF. On information and belief, DuPont's fluorosurfactants, including those trademarked Capstone™, were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

53. Defendant Deepwater Chemicals, Inc. (“Deepwater”) is a Delaware corporation with its principal place of business in Woodward, Oklahoma. On information and belief, fluorosurfactants manufactured by Deepwater were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

54. Defendant Dynax Corp. (“Dynax”) is a Delaware corporation with its principal place of business in Elmsford, New York. On information and belief, Dynax’s fluorosurfactants were used to manufacture AFFF that was used and discharged into the environment in and around Charles County.

55. Defendant Carrier Fire & Security Americas LLC (formerly known as Carrier Fire & Security Americas Corporation) (“Carrier Fire”) is a limited liability company organized under the laws of Delaware, with its principal place of business in Palm Beach Gardens, Florida. Carrier Fire is the indirect parent of Kidde-Fenwal, Inc. (“KFI”). Carrier Fire is a successor to UTC Fire & Security Americas Corporation, Inc. Carrier Fire, including through its contractual assumption of liabilities and its own independent conduct, designed, manufactured, marketed, sold, and/or distributed AFFF products containing or breaking down into PFAS, including AFFF products under the brands “Chubb,” “Kidde,” “Lenel,” and other brand names. Carrier Fire does business throughout the United States, including conducting business in Maryland. On information and belief, Carrier Fire’s AFFF products were used and discharged into the environment in and around Charles County.

56. Defendant RTX Corporation (formerly known as Raytheon Technologies Corporation) (“RTX”), is a corporation organized under the laws of Delaware with its principal place of business in Arlington, Virginia. In April 2020, United Technologies Corporation (“UTC”) merged with Raytheon Technologies Corporation, and thereafter the merged corporation was

renamed RTX. At the time of the merger, UTC held AFFF liabilities due to UTC's design, manufacture, marketing, distribution and sale of PFAS-containing AFFF products, and also as the parent company of Kidde Fenwal, Inc. ("KFI"), National Foam, Inc., and Kidde plc. In turn, KFI, National Foam, Inc., and Kidde plc, held AFFF liabilities as follows: In 2000, Williams plc demerged into Chubb plc and Kidde plc. KFI was a subsidiary of Kidde plc at the time of the demerger, and KFI's AFFF business became part of the newly formed Kidde plc. National Foam, Inc. was a subsidiary of Kidde plc at the time of the demerger, and National Foam, Inc.'s AFFF business became part of the newly formed Kidde plc. Kidde plc contractually acquired the assets of and contractually assumed the debts and liabilities of KFI, National Foam, Inc., and more generally the Kidde plc group of companies that it acquired. In July 2003, UTC acquired Chubb plc, which became a business unit of UTC that focused on security and fire protection products and services. UTC contractually acquired the assets of Chubb plc and contractually assumed the debts and liabilities of Chubb plc. In 2005, UTC contractually acquired Kidde plc's assets and contractually assumed Kidde plc's debts and liabilities, including AFFF liabilities. At the time of this transaction, Kidde plc owned KFI and National Foam, Inc.'s AFFF businesses. Thus, as part of this transaction, UTC contractually assumed National Foam, Inc.'s assets, contractually assumed National Foam, Inc.'s debts and liabilities including AFFF liabilities, and contractually assumed KFI's assets and contractually assumed KFI's debts and liabilities, including AFFF liabilities. UTC is liable for the AFFF liabilities of KFI and National Foam, Inc. including but not limited through contractual assumption of liabilities and principles of successor liability. UTC was the ultimate parent of KFI from 2005-2020. RTX, in turn, is a successor to UTC and the AFFF liabilities held by UTC from UTC's design, manufacture, marketing, distribution and sale of AFFF products, and also as the parent company of KFI, National Foam, Inc., and Kidde plc. RTX,

including through its contractual assumption of liabilities and its own independent conduct, has designed, manufactured, marketed, distributed, and/or sold PFAS-containing AFFF throughout the United States. On information and belief, these RTX products were used and discharged into the environment in and around Charles County. RTX does business throughout the United States, including conducting business in Maryland.

57. Defendant Carrier Global Corporation (formerly known as Carrier Solutions Corporation) (“Carrier Global”), is a corporation organized under the laws of Delaware with its principal place of business in Palm Beach Gardens, Florida. In connection with the Raytheon Technologies Corporation and UTC merger into RTX in April 2020, UTC spun-off one of its reportable segments into Carrier Global, a separate, publicly traded company. Pursuant to the 2020 Separation and Distribution Agreement by and among UTC, Carrier Global, and a third entity (Otis Worldwide Corporation), Carrier Global contractually assumed certain liabilities held by UTC, including those related to the AFFF businesses operated by KFI, National Foam, Inc., and Kidde plc. Carrier Global, through its contractual assumption of liabilities, and its own independent conduct, has designed, manufactured, marketed, distributed, and/or sold PFAS-containing AFFF throughout the United States, including products sold under the brand names “Chubb,” “Kidde,” and “Lenel.” On information and belief, these Carrier Global products were used and discharged into the environment in and around Charles County. Carrier Global does business throughout the United States, including conducting business in Maryland.

58. Defendant Nation Ford Chemical Co. (“Nation Ford”) is a corporation organized and existing under the laws of South Carolina, with its principal place of business located in Fort Mill, South Carolina. On information and belief, Nation Ford supplied fluorochemicals containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used

in AFFF products that were used and discharged into the environment in and around Charles County.

59. On information and belief, Does 1-100 were designers, manufacturers, marketers, distributors, and/or sellers of AFFF products that have and continue to contaminate City resources and properties. Although the identities of these Doe defendants are currently unknown, it is expected that their names will be ascertained during discovery, at which time Plaintiffs will move for leave to add those persons as defendants in this litigation.

III. JURISDICTION AND VENUE

60. This Court has jurisdiction pursuant to 28 U.S.C. § 1332 because complete diversity exists between Plaintiff and Defendants, and the amount in controversy exceeds the minimal jurisdictional limits of this Court. The Plaintiff is located in Maryland, but no Defendant is a citizen of Maryland.

61. The District Court has personal jurisdiction over Defendants in this action because Defendants have, among other things, conducted business in Maryland and caused tortious injury in this jurisdiction.

62. The properties and natural resources that are the subject of this suit all rest within Charles County or are under County ownership, control or management. Any and all federal properties located within Charles County are excluded from this suit.

63. Venue is appropriate in the U.S. District of Maryland pursuant to 28 U.S.C. § 1391(a) because all of the resources and/or property that is the subject of the action are situated in that judicial district.

IV. FACTUAL ALLEGATIONS

A. PFAS ARE DANGEROUS CHEMICALS THAT THREATEN HUMAN AND ENVIRONMENTAL HEALTH AND SAFETY

64. Per- and polyfluoroalkyl substances (PFAS, as defined above) are a group of synthetic chemical compounds containing fluorine and carbon. They are known as “surfactants” in that they reduce the surface tension of water. As such, these chemicals have been used for decades in the manufacture of household and commercial products that resist heat, stains, oil, and water, including carpet and clothing treatments, cardboard packaging and leather products, emulsifiers, wetting agents, additives and coatings, processing aids in the manufacture of fluoropolymers such as nonstick coatings on cookware, and membranes for clothing that are both waterproof and breathable.

65. PFAS are man-made; they do not occur naturally.

66. The two most widely studied types of PFAS are PFOA and PFOS, both synthetic, fully fluorinated organic acids with eight carbon atoms.

67. Although PFOS and PFOA are the most widely studied types of PFAS, the PFAS family includes thousands of different chemicals. Defendants have incorporated dozens of different PFAS chemicals in their AFFF product formulations, including PFOA, PFOS, and PFHxS, among others.

68. PFAS compounds have a number of unique properties that, together, turn these chemicals into a grave threat to public health and the environment.

69. *PFAS chemicals are mobile and persistent.* They readily spread into the natural environment upon release, where they break down very slowly, if at all.

70. The compounds are characterized by multiple carbon-fluorine bonds, which are exceptionally strong and stable. As such, they are extremely persistent in the environment and resistant to metabolic and environmental degradation.

71. PFAS compounds easily dissolve in water and are thus highly mobile and readily

spread in the environment. They contaminate soils and leach from the soil into groundwater, where they can travel significant distances underground.

72. PFAS compounds are also volatile or semi-volatile. Small amounts of the chemicals are routinely and uncontrollably released in the vapor phase from PFAS-containing products and PFAS-contaminated sites and waterbodies, and travel with air currents in vapor form. When such vapors re-suspend or condense, the chemicals are deposited in new locations and environmental media, including surface waters, soils, and others.

73. Through both water and air, therefore, PFAS contamination is aggressively mobile and difficult to control.

74. *PFAS chemicals bioaccumulate and biomagnify in the environment.* Bioaccumulation occurs when an organism absorbs a substance at a rate faster than that at which the substance is lost by catabolism and excretion. Biomagnification is the increasing concentration of a substance in the tissues of organisms at successively higher levels in a food chain.

75. PFAS chemicals are extremely stable and persistent and as such, once ingested, tend to bioaccumulate in individual organisms for a significant period of time.

76. For example, PFOS, PFOA, and PFHxS, among other PFAS, have been shown to accumulate to levels of concern in fish, reaching concentrations of several thousands of times higher than in surrounding water. The compounds have been detected in both wild-caught and farmed fish, presumably as a result of bioaccumulation and/or trophic transfer, i.e., biomagnification up the food chain.

77. PFOA, PFOS, and PFHxS, among other PFAS, have also been shown to bioaccumulate in air-breathing species, including humans.

78. PFAS chemicals further bioaccumulate in developing fetuses and in infants by

crossing the placenta from mother to fetus and by passing to infants through breast milk.

79. PFAS chemicals biomagnify up the food chain—for example, when humans eat fish that have ingested the substances. PFOS has been observed in high concentrations in various animals higher up in the food chain, including bald eagles, walrus, narwhals, and beluga whales.

80. Finally, and critically, *PFAS chemicals are toxic*. Numerous studies make plain that exposure to or ingestion of these chemicals can pose serious risks to humans and to animals.

81. Human epidemiological studies, relied upon by the EPA for purposes of the agency's health advisories on PFOA, have found associations between PFOA exposure and high cholesterol, increased liver enzymes, decreased vaccination response, thyroid disorders, pregnancy-induced hypertension and preeclampsia, and testicular and kidney cancer.

82. Recent research conducted by the National Toxicology Program ("NTP"), a division of the National Institute for Environmental Health Sciences ("NIEHS"), has also linked exposure to extremely small amounts of PFOA to pancreatic cancer.

83. Alarmingly, when discussing the research at a conference on PFAS in June 2019, the director of NIEHS and NTP, Dr. Linda Birnbaum, told attendees that pancreatic tumors are present at "very, very low concentrations from PFOA." Dr. Birnbaum recommended that, to protect human health, the maximum concentration of PFOA should be 0.1 parts per trillion, or 700 times lower than the then current EPA health advisory level of 70 ppt in drinking water.

84. Human epidemiological studies, relied upon by the EPA for purposes of the agency's health advisories on PFOS, found associations between PFOS exposure and high cholesterol, thyroid disease, and adverse reproductive and developmental effects, including gestational diabetes, preeclampsia, and low birth weight. The developing fetus and newborns are particularly sensitive to PFOS-induced toxicity.

85. In addition, PFAS compounds have been shown to affect growth, learning, and behavior of infants and older children, decrease women's ability to become pregnant and to carry a pregnancy to term, and interfere with the body's natural hormones.

86. PFOS and PFOA are toxic to laboratory animals, producing reproductive, developmental, and systemic effects in laboratory tests.

87. The EPA has found that there is suggestive evidence that PFOS and PFOA may cause cancer in humans.

88. A March 2020 peer-reviewed study applied ten key characteristics of carcinogens to 26 PFAS compounds, including PFOA, PFOS, and PFHxS. The "key characteristics of carcinogens" framework is used for cancer hazard identification.

89. That study found "strong evidence" that multiple PFAS induce oxidative stress, are immunosuppressive, and modulate receptor-mediated effects. The study found "suggestive evidence" that some PFAS can induce epigenetic alterations and influence cell proliferation.

90. In particular, the study identified evidence that: (a) PFOA induces epigenetic alterations; induces oxidative stress; induces chronic inflammation; is immunosuppressive; modulates receptor-mediated effects; and alters cell proliferation; (b) PFOS induces epigenetic alterations; induces oxidative stress; induces chronic inflammation; is immunosuppressive; modulates receptor-mediated effects; and alters cell proliferation; and (c) PFHxS induces oxidative stress; is immunosuppressive; modulates receptor-mediated effects; and alters cell proliferation.

91. Similar traits associated with carcinogenicity were identified with respect to other PFAS compounds utilized in AFFF products designed, manufactured, marketed, distributed, provided, supplied, and sold by Defendants.

92. Another peer-reviewed study published in 2020 found further evidence that certain

PFAS compounds, particularly PFOS and PFOA, result in premature births, decreased fertility, and increased odds of low birth weight. These adverse effects on reproductive health were demonstrated by an analysis of birth outcomes in Oakdale, Minnesota, where a portion of the population faced elevated exposure to PFAS due to long-term contamination of drinking water supplies from industrial waste disposal. The study focused on birth outcomes in the area from 2002 to 2011. Reproductive outcomes improved significantly following the installation of a water filtration facility in Oakdale at the end of 2006, demonstrating the causal relationship between exposure to high level of PFAS in drinking water and reproductive health.

93. In October 2021, the EPA also released a final human health toxicity assessment for GenX chemicals, which incorporated new data available since 2018. GenX chemicals, as explained further below, were a trademarked family of short-chain PFAS chemicals marketed since the 2010s by DuPont as a purportedly safer alternative to PFOA. The EPA's assessment resulted in a lower, more protective toxicity value for GenX chemicals relative to the EPA's 2018 draft toxicity assessment.

94. On November 16, 2021, the EPA further provided the Science Advisory Board PFAS Review Panel with recent scientific data and new analyses that indicate negative health effects may occur at much lower levels of exposure to PFOA and PFOS than had previously been understood, and that PFOA is a likely carcinogen.

95. These EPA analyses underwent peer review, and in 2022, they formed the basis for revised health advisories for certain PFAS, and were relied upon in the development of Maximum Contaminant Level Goals and a National Primary Drinking Water Regulation for PFOA and PFOS, and four other PFAS chemicals (described below).

96. In November 2023 the World Health Organization's International Agency for

Research on Cancer recognized that PFOA and PFOS present carcinogenic hazards to humans.

97. The increasing scientific consensus is that any detectable level of PFAS, particularly PFOA and PFOS, in water supplies or natural resources to which humans are exposed is cause for concern and a potential human health issue.

B. THE PUBLIC’S UNDERSTANDING OF PFAS, A NATIONWIDE ENVIRONMENTAL PROBLEM, CONTINUES TO EVOLVE

98. Given their physical and chemical properties, PFAS chemicals have become incredibly widespread in the environment, contaminating drinking water supplies, water infrastructure (including stormwater systems, water treatment plants, drinking water delivery infrastructure, wastewater systems and biosolids), and posing an environmental and human health crisis in Charles County and beyond.

99. Indeed, PFAS have been detected in environmental media and biota in many parts of the world, including oceans and the Arctic.

100. The chemicals have been found in cereals, fish, soft drinks, milk, olive oil, and meat, as well as in prepared foods.

101. According to the EPA, between 1999 and 2012, PFOA and PFOS have been detected in the blood serum of 99 percent of the U.S. population. This is particularly troubling given the real and significant adverse health effects these chemicals pose.

102. The Director of the U.S. Center for Disease Control’s National Center for Environmental Health, Patrick Breysse, described the chemicals in October 2017 as “one of the most seminal public health challenges for the next decades” and estimated 10 million Americans were drinking contaminated water. Current research estimates that this number is significantly higher—likely in the hundreds of millions of Americans.

103. This understanding of PFAS contamination as a widespread public health crisis has

been slow to evolve, however, and has only recently garnered broad attention. Indeed, although the EPA began to investigate the safety of PFOA and PFOS in or around 1998 following some limited disclosures by 3M and others, the agency did not begin to issue health advisories for these chemicals until January 8, 2009.

104. The 2009 EPA health advisory noted merely that “action should be taken to reduce exposure” to drinking water containing levels of PFOA and PFOS exceeding 400 parts per trillion (“ppt”) and 200 ppt, respectively.

105. In May 2016, the EPA significantly revised its PFOA and PFOS health advisory, recommending that drinking water concentrations for PFOA and PFOS, either alone or combined, should not exceed 70 ppt.

106. Notably, the EPA’s health advisories are “informal technical guidance to assist federal, state, and local officials, as well as managers of public or community water systems in protecting public health. They are not regulations and should not be construed as legally enforceable federal standards.”

107. As more studies were completed, the EPA has increased its regulation of PFAS.

108. In November 2020, the EPA announced its intention to address PFAS in NPDES permits issued by the EPA. And in September 2021, the EPA announced that it was initiating three new rulemakings to reduce PFAS contamination in wastewater discharges from several key industries.

109. In January 2023, the EPA released its Effluent Limitations Guidelines Plan 15, setting technology-based standards for industries that discharge PFAS. This Plan announced rulemakings to address discharges from landfills, and a new Publicly Owned Treatment Works Influent Study. This study will collect more data on discharges into wastewater streams from a

broad range of industries and will form the basis for PFAS Effluent Limitations Guidelines (“ELGs”) in the future.

110. On February 22, 2021, the EPA finalized its decision to regulate levels of PFOS and PFOA in drinking water under the Safe Drinking Water Act, including by proposing enforceable MCLs.

111. In June 2022, the EPA announced drastically reduced health advisories for PFOA and PFOS, reducing the tolerance for these contaminants from 70 ppt to 0.004 ppt and 0.020 ppt, respectively. In other words, 0.004 ppt is 4 parts per quadrillion (“ppq”), and 0.020 ppt is 20 ppq.

112. At the same time, the EPA also announced new health advisory levels for GenX (10 ppt) and PFBS (2,000 ppt).

113. On April 10, 2024 the EPA finalized enforceable MCLs for six PFAS known to occur in drinking water, including PFOA, PFOS, perfluorononanoic acid (“PFNA”), GenX, PFHxS, and perfluorobutane sulfonic acid (“PFBS”). The MCL for PFOS and PFOA is 4 ppt for each, and for PFHxS, PFNA, and GenX the MCL is 10 ppt for each. The PFAS chemicals subject to this regulation apart from PFOA and PFOS are subject to a Hazard Index when mixtures contain two or more of them. In addition, the EPA enacted advisory Maximum Contaminant Level Goals of zero for both PFOS and PFOA. On January 14, 2025, the EPA released for public comment its draft risk assessment of PFOS and PFOA in biosolids. The final risk assessment will be issued after revisions based on public comments. The EPA expects to propose a regulation under the Clean Water Act to manage PFOA and/or PFOS in sewage sludge, in the event the final risk assessment indicates that there are public health and environmental risks above acceptable thresholds when using or disposing of sewage sludge.

114. The EPA is also developing principles for “managing biosolids as awareness of

PFAS occurrence in biosolids continues to grow.”

115. On April 17, 2024 the EPA designated PFOA and PFOS as hazardous substances under federal environmental laws.

116. The State of Maryland has largely followed the federal government for PFAS regulation of drinking water, but is perhaps out ahead of the federal government for regulation of wastewater discharges and for biosolids.

117. Charles County worked with the State of Maryland to test its influent and effluent at the Mattawoman WWTF. Finding elevated PFAS levels, the State incorporated into the Charles County’s NPDES permit in effect since August 1, 2024, requirements to conduct additional PFAS monitoring of influent, effluent, and biosolids at Mattawoman. That permit also provides that in the event that PFAS testing reveals detections above soon-to-be established State Action Levels in two consecutive sampling events, the County must then submit a plan for State approval of practical steps the County will take to identify the potential sources of PFAS contamination of wastewater and/or biosolids.

118. Charles County also worked with the State of Maryland to test its biosolids and found elevated levels of PFAS there as well. Currently the County’s biosolids are contracted to a third party which spreads them as fertilizer on agricultural lands in Charles County and elsewhere. The State is in the process of conducting a comprehensive review of all biosolids data to determine how to proceed with land application permits and could soon impose costly restrictions.

C. DEFENDANTS’ AFFF PRODUCTS HAVE FOR DECADES CONTAMINATED THE ENVIRONMENT WITH PFAS

119. The PFAS application critical to the claims asserted in this Complaint is AFFF, which is widely used to suppress and extinguish fires of flammable liquids, such as fuel and oil.

120. In the 1940s, 3M began to experiment with a process called electrochemical

fluorination to create the carbon-fluorine bonds that are the key components of PFAS, including PFOA, PFOS, and PFHxS.

121. The other major carbon-fluorine bond producing process, which was used by the remaining Defendants, is called telomerization. This process generally results in PFOA and other carboxylates.

122. Beginning in the 1950s through 2000, 3M sold PFOA to Dupont for use in Dupont's manufacturing operations. After 3M ceased production beginning in or around 2000, Dupont began producing PFOA.

123. Recognizing the compounds' strong surfactant properties described above and building on its earlier experiments, 3M began to develop AFFF containing PFOS in the early 1960s to suppress flammable liquid fires that cannot be effectively extinguished with water alone.

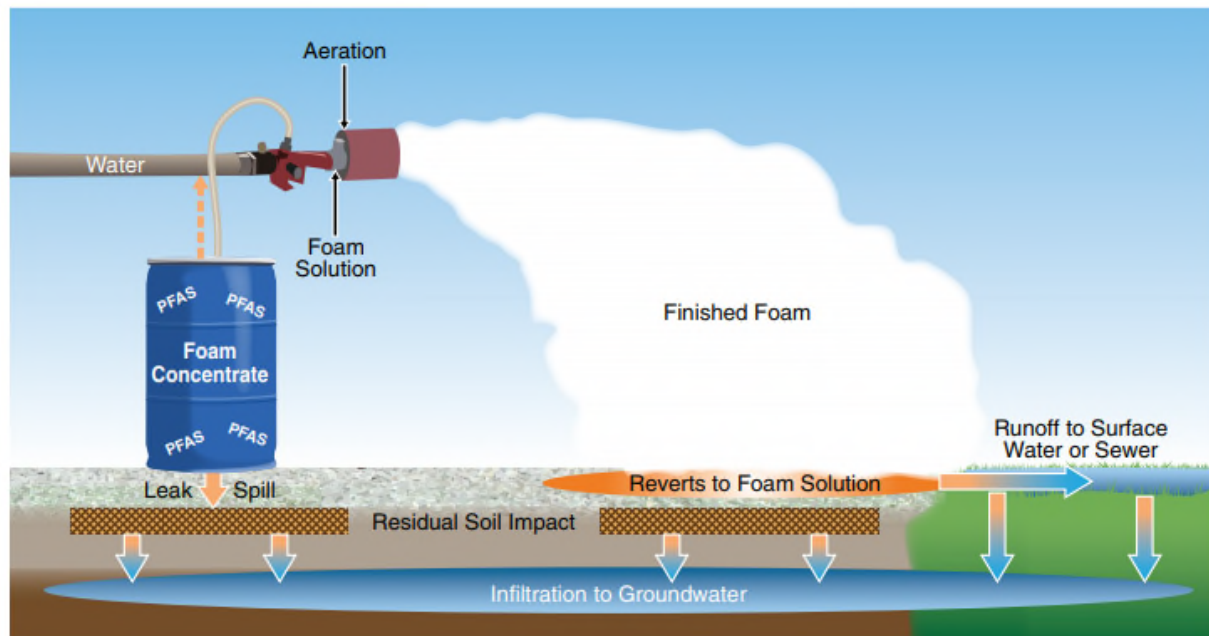
124. In the late 1960s, the United States military issued military specification MIL-F-24385 governing the requirements for AFFF ("AFFF Mil Spec"). It required that the AFFF concentrate "consist of fluorocarbon surfactants plus other compounds . . ." The AFFF Mil Spec, however, contains no further requirements concerning these fluorocarbons surfactants, such as the length of the fluorine-carbon chain. The AFFF Mil Spec also states that "[t]he material shall have no adverse effect on the health of personnel when used for its intended purpose." The current version of the AFFF Mil Spec still contains that language.

125. The United States government has expressly clarified that the AFFF Mil Spec "was a performance military specification (as opposed to a detail military specification); meaning that the product manufacturers [and not the United States government] determine[d] the exact formulation and specific perfluorocarbon surfactants . . ."

126. From the 1960s to about 1973, 3M was the sole supplier of AFFFs. Beginning in

about 1973, fluorotelomer-based AFFF manufacturers entered the market.

127. AFFF is applied by firefighters in the field by mixing foam concentrate and water to make a foam solution. When applied to a fire, the foam solution is aerated at the nozzle. The foam solution is sprayed out to coat the fire, blocking the supply of oxygen feeding the fire and creating a cooling effect and evaporation barrier. A film also forms to smother the fire after the foam has dissipated:



128. In other words, it is intended by, and foreseeable to, the AFFF manufacturer or supplier that AFFF will be mixed with water and sprayed in such a manner that it can freely seep into the groundwater and soil, contaminating the environment.

129. PFAS-based AFFF is the predominant commercial PFAS application that, when used as intended, releases toxic chemicals directly into the environment in a manner enabling them to freely seep into the groundwater, contaminate drinking water supplies, and travel long distances to cause further, widespread environmental contamination.

130. A single firefighting event or training exercise may result in the release of thousands of gallons of foam solution laced with PFAS that then enter and contaminate the environment.

131. For decades, PFAS-based AFFF products have been stored and used for fire suppression, fire training, and flammable vapor suppression at hundreds of locations, such as fire training schools, fire stations, military installations, and civilian airports, as well as at petroleum refineries, storage facilities, and chemical manufacturing plants throughout the United States, including in and around Charles County.

132. In 2016, in groundwater on base at the Naval Air Support Indian Head facility in Charles County, PFAS traceable to AFFF was detected at 37 ppt PFOS, 19 ppt PFOA, 19 ppt PFNA, 28 ppt PFHxS, 83 ppt PFBS, and 9.3 ppt PFHpA.

133. At Joint Base Andrews in contiguous Prince George's County, PFAS attributable to AFFF was detected in groundwater in 2019 at 33,000 ppt PFOS, 16,000 ppt PFOA, 1,600 ppt PFNA, 40,000 ppt PFHxS and 6,1000 ppt PFBS.

134. Groundwater at the Maryland Army National Guard La Plata Readiness Center in La Plata, Maryland tested 0.4 ppt PFTA in its groundwater in 2017.

135. Similarly, at the U.S. Army's Blossom Point research facility in Welcome, Maryland PFOA was detected at 1.1 ppt in 2016.

136. Additionally, local fire departments, including Goodwill Volunteer Fire Company, Inc., in Centreville, the Queenstown Volunteer Fire Department and Rescue Services, in Queenstown, and the Kent Island Volunteer Fire Department, in Stevensville, among others, have purchased, and upon information and belief discharged, quantities of AFFF in Charles County.

137. Upon information and belief, the La Plata Volunteer Fire Department, Waldorf

Volunteer Fire Department, and Indian Head Volunteer Fire Department also purchased and discharged quantities of AFFF in Charles County.

138. Fire training exercises involving AFFF are common, particularly on airfields, fire training schools, fire stations, and military installations, and have been performed many thousands of times since the 1960s, each time releasing vast quantities of toxic chemicals into the environment.

139. AFFF use has been identified as one of the main contributors to the widespread environmental contamination with PFAS.

140. Despite the recent phase-out of certain long-chain PFAS, further discussed below, much of the current AFFF stockpiles still contain long-chain PFAS constituents due to the long shelf-life of these products. PFAS-based AFFF thus continues to be widely stored and used, including in or around local fire departments.

141. Significantly, in recognition of the dangers of PFAS, the AFFF Mil Spec was amended in September 2017 to state expressly that the U.S. Department of Defense (“DOD”) seeks “to acquire and use a non-fluorinated AFFF formulation or equivalent firefighting agent to meet [its] performance requirements” Again in April 2020 DOD amended the Mil Spec to make clear that the AFFF Mil Spec requires only that AFFF “[c]oncentrates shall consist of surfactants plus other compounds...” – not necessarily fluorosurfactants. Most recently, in January 2023, DOD updated the Mil Spec to set performance standards for firefighting foam concentrates specifying the concentrates are to be “fluorine-free” and contain no detectable amounts of PFAS chemicals.

142. Had Defendants been forthright about their products’ chemical properties and the environmental and human health hazards they posed, the DOD (and federal and state regulatory

agencies) would have taken steps to prevent, control, or minimize the environmental and human health threats from AFFF containing and/or breaking down into PFAS (including PFOA, PFOS, and PFHxS), much sooner, or would never have used them in the first place.

V. THE DEFENDANTS KNEW ABOUT BUT CONCEALED THE DANGERS OF PFAS CONTAINED IN AFFF

143. Particularly 3M and Dupont have known or, at a minimum, should have known for many decades that PFOA, PFOS, and other PFAS compounds are mobile and persistent, bioaccumulative and biomagnifying, volatile, and, above all, toxic.

144. On information and belief, the other Defendants, each of which designed, manufactured, marketed, provided, supplied, sold, and/or distributed PFAS-based AFFF and/or AFFF component products, likewise knew of the dangers posed by PFAS, including through information they obtained as part of their participation in trade industry associations.

145. All Defendants were careful to withhold the most damning information about PFOS, PFOA, and other PFAS from the public and regulators.

146. 3M conducted extensive toxicity studies on PFAS, including PFOS and PFOA, as early as the 1950s, concluding that the chemicals were toxic.

147. Further toxicity studies conducted by 3M scientists in the late 1970s confirmed that the chemicals were even “more toxic than anticipated.”

148. In 1978, 3M conducted studies on monkeys and rats, feeding them various dosages of PFOS and PFOA. All monkeys in the study died within the first few days after being given PFOS at a dosage of 4.5 mg/kg/day. Monkeys being given 100 mg/kg/day of PFOA “all died during weeks 2 and 5 of the study.” The Company’s studies showed that both PFOA and PFOS affected the liver and gastrointestinal tract of the species tested.

149. 3M concluded that PFOS was “the most toxic” of the compounds studied and

“certainly more toxic than anticipated.”

150. 3M consulted with Harold Hodge, a well-known toxicologist, who emphasized that it was of “utmost importance” to determine whether these chemicals “or its metabolites are present in man, what level they are present, and the degree of persistence (half-life) of these materials.”

151. Further, in 1975, 3M was alerted by third-party researchers that PFOS was detectable in human blood serum and thus had obviously spread beyond the immediate site of its applications and was bioaccumulating. 3M’s own research confirmed by the next year that the level of fluorochemicals in the blood of its own workers was “1,000 times normal.”

152. Conducting research around its manufacturing plants, 3M knew by 1979 that its fluorochemicals “bioaccumulated more readily in the gastrointestinal tract, fat and reproductive system [at least in] channel catfish[.]”

153. By 1979, 3M recognized that fluorochemicals may pose a cancer risk. Indeed, one of its scientists pressed that it was “paramount to begin now an assessment of the potential (if any) of long term (carcinogenic) effects for these compounds which are known to persist for a long time in the body and thereby give long term chronic exposure.”

154. 3M never published its toxicity studies and worked actively to stifle research on the adverse effects of PFAS, including PFOA and PFOS. Indeed, 3M kept John Giesy, PhD, Professor and Canada Research Chair in Environmental Toxicology in the Department of Veterinary Biomedical Sciences and Toxicology Centre at the University of Saskatchewan, on its payroll to the tune of millions of dollars, for the purpose of influencing independent academic research. It was Professor Giesy’s professed goal to keep unfavorable papers regarding PFAS out of the academic literature, lest plaintiffs find scientific support for legal theories seeking to hold 3M liable for injuries.

155. 3M also advised its employees not to put their thoughts and research concerning PFOS or PFOA in writing, as such communications would need to be disclosed during discovery in likely litigation.

156. 3M also knew the environmental implications associated with PFAS compounds, including PFOS and PFOA, but refused to allow testing to perform precise ecological risk assessments. One of its longtime scientists, Dr. Richard Purdy, stated in an internal email: “PFOS is the most onerous pollutant since pcb and you want to avoid collecting data that indicates that it is probably worse. I am outrage[d.]”

157. Despite 3M’s knowledge of PFAS toxicity and potential carcinogenicity, the mobility and persistence in the environment of such chemicals, and their tendency to bioaccumulate and biomagnify, the Company continued to manufacture, sell, and distribute PFAS-based AFFF until at least 2000.

158. Dr. Purdy resigned, exhausted by the Company’s “roadblocks, delays, and indecision” concerning research on PFAS’ environmental effects and its failure to address their known environmental harms:

- 3M continues to make and sell these chemicals, though the company knows of an ecological risk assessment I did that indicates there is a better than 100% probability that perfluorooctansulfonate is biomagnifying in the food chain and harming sea mammals. This chemical is more stable than many rocks. And the chemicals the company is considering for replacement are just as stable and biologically available. The risk assessment I performed was simple, and not worst case. If worst case is used, the probability of harm exceeds 100,000%.

159. Dr. Purdy concluded that he could no longer work for a company “concerned with markets, legal defensibility and image over environmental safety.”

160. Dr. Purdy copied the EPA on his March 1999 resignation letter.

161. Shortly thereafter, 3M supplemented its prior submissions to the EPA with critical information referenced by Dr. Purdy. In 2000, 3M “voluntarily” ceased production of certain

PFAS compounds, including PFOS and PFOA.

162. In April 2006, 3M paid a penalty of more than \$1.5 million to the EPA for its failure to disclose pertinent studies regarding PFOA and PFOS.

163. Much like 3M, Dupont has been aware of the toxicity of PFAS, including PFOA, for decades.

164. By 1961, Dupont's own researchers had concluded that PFOA was toxic and should be "handled with extreme care." During the 1960s, Dupont also had knowledge that PFOA caused adverse liver reactions in dogs and rats.

165. By 1976, Dupont was also aware of research reports that detected organic fluorine in blood bank samples in the U.S., which the researchers believed to be a potential result of human exposure to PFOA. In other words, Dupont knew or should have known that PFOA was traveling in the environment and bioaccumulating in other organisms including in people.

166. By 1982, Dupont's corporate Medical Director, Bruce Karrh, in internal correspondence confirmed that PFOA stays in the blood for a long time and registered his concern that members of the local community may be affected by PFOA releases. Dupont then began a clandestine water sampling program to determine how far a distance from its operations PFOA remained in the waterways at elevated levels. Dupont detected PFOA in water supplies at a distance of at least 79 miles from its Parkersburg Plant.

167. In 1979, Dupont further became aware of the PFOA/PFOS toxicity studies 3M had conducted on monkeys and rats described above.

168. About three years later, 3M also shared a study undertaken on pregnant rats, indicating that PFOA led to adverse effects in fetuses. Dupont tested the blood of female workers who had given birth and had been exposed to PFOA, documenting that PFOA moved across the

human placenta.

169. Dupont transferred all women out of work assignments with potential exposure to PFOA, but concealed its pregnancy-related study from the workers, the EPA and the public.

170. During the mid-1980s, Dupont continued to find evidence of the toxicity of PFOA. In 1985 and 1986, researchers from Dupont's Haskell Laboratory for Toxicology and Industrial Medicine published two studies on the toxicity of PFOA. One study found PFOA to be "moderately toxic," producing "an increase in liver size and corneal capacity" in rats exposed by inhalation to PFOA; the other studied dermal toxicity in rats and rabbits and found skin irritation in both, and increased liver size in rats.

171. By 1988, Dupont was aware that at least one toxicity study performed on laboratory rats revealed a relationship between PFOA exposure and increased rates of certain types of cancer, including testicular cancer.

172. In 1988, Dupont internally classified PFOA as a possible human carcinogen.

173. Evidence of PFOA's toxic effects continued to mount. In 1999, Dupont received data from a laboratory study on the effects of PFOA exposure on primates that showed that two of twenty-two monkeys had died, including one that had received the lowest dose of PFOA. And, by June 2000, Dupont was aware that the American Council of Governmental and Industrial Hygienists had designated PFOA as a "confirmed animal carcinogen."

174. Despite its knowledge of PFOA's toxicity and carcinogenicity, its mobility and persistence in the environment, and its tendency to bioaccumulate, Dupont continued to use PFOA in its products (and, beginning in 2002, also manufactured the chemical once its primary manufacturing source, 3M, had exited that market), including surfactants made for use in the manufacture of AFFF.

175. Having doubled down on the PFAS business, Dupont continued to actively conceal the risks of PFOA and other PFAS from the public. Beginning in 2003, Dupont paid various consultants, including the Weinberg Group, thousands of dollars to implement a comprehensive strategy to attack and discredit those who alleged adverse health effects from PFOA, to prevent third parties from connecting Dupont to PFOA health problems, to coordinate media and third-party communications, and to thwart any PFOA-related litigation.

176. In February 2003, a manager at Dupont's Washington Works Plant, near Parkersburg, West Virginia, made knowingly false and misleading statements to the media, that: "[i]n more than 50 years of [PFOA] use by [Dupont] and others, there have been no known adverse human health effects associated with the chemical," that "all" of the available scientific research "has been provided to both state and federal regulators," that "epidemiological studies of workers do not indicate an increased risk of cancer associated with exposure to [PFOA]," that "[Dupont] has made significant efforts to respond to the public honestly and openly with correct information about [PFOA]," and that "the use of [PFOA] at the Washington Works site has not posed a risk to either human health or the environment."

177. Later, in March and April of 2003, various Dupont employees and executives — including its Vice President and General Manager of Fluoroproducts, the Director of its Haskell Laboratory, the Spokesperson for the Washington Works Plant, and its CEO — made public statements denying that Dupont had seen any negative impacts on human health or the environment caused by Dupont's use of PFOA.

178. Dupont made multiple, additional knowingly false and misleading public statements regarding the toxicity and adverse health effects of PFOA and other PFAS.

179. Dupont settled litigation brought by Parkersburg residents in 2005. As part of its

settlement Dupont financially supported what was dubbed the “C8 science panel,” made up of three independent epidemiologists from Emory University, Brown University, and the London School of Hygiene and Tropical Medicine, and tasked with researching the health effects of PFOA based on blood samples and other health data taken from almost 70,000 residents of the Mid-Ohio Valley.

180. Also in 2005, the EPA fined Dupont \$16.5 million, then the largest civil administrative penalty the agency had ever issued, for the Company’s failure to report possible health risks associated with PFOA.

181. With the writing on the wall and upon invitation by the EPA, Dupont agreed in 2006 to join the “PFOA Stewardship Program” working towards the elimination of PFOA by 2015.

182. In the meantime, however, the Company continued to manufacture PFOA, and at least until 2008 the Company made fluorotelomers with PFOA byproducts for the express and intended purpose of being used in the manufacture of AFFF.

183. The C8 Science Panel completed its research in 2013, finding likely connections between PFOA and high cholesterol, ulcerative colitis, pregnancy-induced hypertension, thyroid disease, testicular cancer, and kidney cancer.

184. Beginning in 2013, Dupont replaced its production and use of PFOA with GenX chemicals.

185. GenX is the trade name for the short-chain PFAS chemicals, including hexafluoropropylene oxide dimer acid, that allow for the creation of fluoropolymers without PFOA.

186. Dupont first began generating GenX in or around 1980, but it remained a chemical byproduct of other manufacturing processes until the 2010s.

187. While Dupont, in a 2010 marketing brochure, touted GenX as having “a favorable toxicological profile,” studies have shown that exposure to GenX has negative health effects, suggestive of cancer and other diseases on the kidney, blood, immune system, developing fetuses, and especially in the liver following oral exposure. Indeed, as discussed above, based on continuing human health effects assessment research for GenX chemicals since 2018, the EPA has recently issued an MCL of 10 ppt for GenX in drinking water.

188. Further, like PFOA and other PFAS compounds, GenX is persistent in the environment, not readily biodegradable, and mobile in the presence of water.

189. Dupont acknowledged in the same brochure referenced above that GenX “is chemically stable and, if released, would be environmentally persistent.”

190. In 2015, after Chemours was spun out of Old DuPont into an independent, publicly traded company, Chemours took over production of legacy Dupont’s PFAS chemistry, including GenX.

191. Like Dupont, Chemours has, since 2015, designed, manufactured, marketed, distributed, and sold its PFAS compounds, including GenX, for use in AFFF products.

192. On information and belief, the remaining Defendants also knew, or should have known, that in its intended and common use, PFAS-based AFFF and/or AFFF component products would injure and/or threaten the environment and public health. This information was accessible to each of them, including as part of their ongoing involvement in various trade associations constituted for the purpose of defending the AFFF franchise, including the firefighting foam coalition (“FFFC”).

193. RTX, Carrier Fire and Global Carrier, through their own actions and those of their predecessor entities whose AFFF liabilities they contractually assumed, recognized that they were

subject to liability for their AFFF products.

194. UTC, now known as RTX, further knew that the FFFC falsely told the federal government that UTC's telomer-based AFFF did not contain C8 surfactants. In a 2008 email exchange, two UTC employees discussed the FFFC's claim to DOD that telomer-based products were made with C6 surfactants rather than C8 surfactants. They agreed this claim was untrue and was likely done to distinguish telomer AFFF from 3M's discredited AFFF. One of UTC's employees observed that the FFFC had been "economical with the truth" when it led "the EPA to believe that firefighting foam agents were only made with C6 surfactants."

195. Additionally, all Defendants knew or, at a minimum, should have known that their PFAS-based AFFF and/or AFFF component products, given their chemical composition, easily dissolve in water (and indeed the products were designed to be mixed with water and sprayed on the ground), are mobile, resist degradation, and tend to bioaccumulate and biomagnify.

196. Despite their knowledge of the harmful properties of PFAS chemicals, following 3M's withdrawal from the PFOA/PFOS market beginning in or around 2000, Dupont and the other Defendants made renewed commitments to protect their lucrative AFFF lines of business.

197. In response to concerns expressed by the EPA regarding the environmental viability of AFFF, the FFFC was formed in 2001, partly to dispel such concerns. Dupont was a founding member. At least National Foam, Inc., and Dynax are current members.

198. The FFFC lobbied hard for AFFF. At conferences, in journals, and in meetings with the military, the EPA, and other regulators, it repeated a key talking point: only one PFAS chemical, PFOS, had been taken off the market. Thus, the FFFC asserted, since the FFFC members' products did not contain PFOS, their products were safe. However, they knew their products contained PFOA and other PFAS chemicals, which Defendants knew or, at a minimum,

should have known were equally harmful to the environment and public health.

199. Dupont and other Defendants eventually transitioned to the use of short-chain fluorotelomers with a maximum of six carbon atoms, claiming those chemicals are safer to environmental and human health.

200. Even if such claims were true, Defendants could have begun much earlier to transition from long-chain to short-chain fluorotelomers. Despite their claims that these short-chain alternatives substantially mitigate the risk of human and environmental harm from AFFF products, they failed to adopt what would present a feasible alternative to the then-current formulations of PFAS-based AFFF. Their refusal to adopt this safer feasible alternative confirms that their products based on long-chain fluorotelomers were not reasonably safe for their intended applications.

201. Moreover, effective fluorine-free firefighting foams that do not pose the same risks to human health and the environment as Defendants' products exist and are used in some of the world's largest airports, including London Heathrow, London Gatwick, Copenhagen, Stuttgart, and Dubai, among others.

202. All 27 of Australia's airports have been using fluorine-free foams for many years.

203. Indeed, leading fire safety and regulatory experts have opined that there are simply no justifications for continued use of toxic foams given this successful, widespread use of an environmentally safe alternative.

204. According to a report issued by a panel of experts of the International Pollutants Elimination Network, a global network of public interest NGOs dedicated to the reduction of toxic chemicals, fluorine-free firefighting (F3) foams are viable alternatives, and comparable by all measures, to fluorinated AFFF.

205. But unlike fluorinated foams, F3 foams do not pollute the environment indefinitely, or put human or animal health at risk; there is no expensive clean up; remediation costs are negligible or zero; and there are no significant legal and financial liabilities. Public health values such as clean drinking water are not compromised, and, finally, there is no erosion of public confidence in political institutions and government agencies.

206. Defendants failed to adequately research and investigate the design, manufacture, or sale of fluorine-free firefighting foam, or did so and concealed their results. They avoided fluorine-free alternatives to protect their existing, lucrative AFFF lines of business.

207. Defendants' failure to pursue this feasible alternative to PFAS-based AFFF further confirms that their AFFF products were not reasonably safe for their intended applications.

D. DEFENDANTS' AFFF PRODUCTS HAVE CAUSED (AND CONTINUE TO CAUSE) WIDESPREAD PFAS CONTAMINATION IN AND AROUND CHARLES COUNTY

208. Defendants' PFAS-based AFFF and AFFF component products have been used for decades at locations and facilities throughout Maryland, including within Charles County, and in other surrounding areas.

209. Indeed, PFAS-based AFFF and AFFF component products manufactured by Defendants were handled, stored and used for decades by local fire departments, including the La Plata Volunteer Fire Department in La Plata, the Waldorf Volunteer Fire Department in Waldorf, and the Indian Head Volunteer Fire Department in Indian Head, among others.

210. AFFF and AFFF component products were likely also handled, stored and used within Charles County and its environs, at U.S. military facilities and manufacturers.

211. For example, groundwater at the Indian Head Naval Base in Indian Head, MD, found detections of combined PFOA and PFOS at 56 ppt, and PFBS at 83 ppt. Groundwater at Blossom Point Research Facility under U.S. Army Garrison, Adelphi Laboratory Center in

Adelphi, MD, found 1.1 ppt of PFOA. In addition, the Maryland National Guard Readiness Center in La Plata, MD, detected 0.4 ppt of PFTA in its groundwater. Investigation is ongoing.

212. PFAS-based AFFF products used and disposed in the ordinary and intended manner at these and other locations have contaminated with PFAS County resources and properties, including groundwater, wastewater and biosolids used as fertilizer within the County and elsewhere.

213. Upon information and belief, during routine training exercises, PFAS-based AFFF was sprayed directly on the ground during fire training at local fire stations and during firefighting training exercises in and near Charles County, allowing PFAS to travel to the surrounding groundwater, to run off to the Potomac River, the Chesapeake Bay and other nearby surface waters, to enter the County's stormwater, groundwater and wastewater systems, and to cause widespread contamination.

214. Additional releases of AFFF have occurred at these locations, through testing of equipment and other incidental or accidental releases in fire stations, military sites, and, upon information and belief, manufacturing centers, and related areas.

215. On information and belief, the locations identified in this section as known or likely point-sources of PFAS contamination, collectively housed thousands of gallons of AFFF concentrate manufactured by Defendants, stored in buckets, drums, tankers, tanks, piping and sprinkler systems. Undoubtedly, handling and storing AFFF at these and other sites within and near Charles County resulted in spills and leakage of AFFF.

216. The use of AFFF for training purposes at these locations likely included suppressing fires and explosions on the ground, as well as coating runways in anticipation of difficult landings, all of which resulted in acres of foam-covered pavements and soil, and blanketed

wreckages.

217. On information and belief, PFAS-based AFFF was also used at numerous other locations in and near Charles County, including at fire stations and training grounds, to suppress fires, and at industrial facilities.

218. During firefighting and firefighting training exercises at or near these and other sites, PFAS-based AFFF was likewise sprayed, per its intended use, directly on or near the ground and into the air, causing it to be disposed, spilled, and otherwise discharged into the environment.

219. These activities, at the locations identified and others, resulted in discharges or releases of PFAS from Defendants' AFFF products into nearby surface waters, groundwater, soil, and air, as well as water infrastructure owned, operated, and/or maintained by the County, including its drinking water supplies and infrastructure, stormwater system, and wastewater, and wastewater treatment works.

220. In short, the normal, intended, and foreseeable manner of storage, use, and disposal of Defendants' AFFF products directly resulted in the discharge or release of PFAS into, onto, and near the County's environmental and infrastructural resources and properties, causing injury to the County.

221. Upon information and belief, PFAS-based AFFF and/or AFFF component products designed, manufactured, marketed, provided, supplied, sold, and/or distributed by each Defendant were discharged or released into the environment at or from the locations identified above and other sites referenced herein.

222. The instructions, labels and/or material safety data sheets that Defendants provided with their AFFF and/or AFFF component products, if any, during the times relevant to the claims in this Complaint did not fully or sufficiently describe the human and animal health and

environmental hazards of PFAS-based AFFF about which Defendants knew or should have known.

223. The instructions, labels and/or material safety data sheets that Defendants provided with their AFFF and/or AFFF component products, if any, during the times relevant to the claims in this Complaint did not provide appropriate warnings and instructions concerning the environmentally safe use and disposal of PFAS-based AFFF that were known or should have been known to Defendants.

224. The instructions, labels and/or material safety data sheets that Defendants provided with their AFFF and/or AFFF component products, if any, during the times relevant to the claims in this Complaint did not provide appropriate instructions regarding how to design a firefighting testing site, or what precautions are necessary to take at such testing sites, in a manner that would potentially eliminate or limit the release of PFAS into the environment, even though the hazards of failing to appropriately contain PFAS were known or should have been known to Defendants.

225. For example, instructions to install a liner under a testing area or outfitting area test-sites with appropriate water filtration systems could have significantly contained the spread of PFAS into the environment. Defendants knew this, but failed to warn or instruct anyone that their products should only be stored, used, and disposed in conjunction with an effective liner or catch basin, or water filtration system capable of removing PFAS before it could contaminate natural resources and water infrastructure.

226. The instructions, labels and/or material safety data sheets that Defendants provided with their AFFF and/or AFFF component products, if any, during the times relevant to the claims in this Complaint did not provide appropriate warnings of potential pollution of groundwater, surface waters, or municipal water systems with PFAS nor advised the AFFF user to install

appropriate water filtration devices to protect the city's resources and properties, even though Defendants knew or should have known about the inevitability of groundwater, surface water, air, and soil contamination through the ordinary and intended use of their PFAS-based AFFF products and consequent adverse effects.

227. As a result, PFAS contamination attributable to the use and disposal of Defendants' PFAS-based AFFF products now afflicts County resources and properties, including without limitation water conveyed and discharged through stormwater systems, drinking water systems, wastewater, and wastewater treatment works, as well as, upon information and belief, soils, groundwater and surface waters.

228. To date, the Woodley Well of the County's Beantown CWS registered 1.04 parts per trillion ('ppt') of PFNA.

229. Initial MDE PFAS testing of wastewater influent, effluent and biosolids at the Mattawoman WWTF revealed substantial PFAS detections. The MDE concluded, "Because of the magnitude of the Mattawoman [WWTF] capacity and the designated use of the downstream shellfish harvesting, the impact of its discharge effluent and generated biosolids on the environment should be investigated."

230. Accordingly, quarterly PFAS testing of Mattawoman influent, effluent and biosolids are now conditions of that plant's NPDES discharge permit. As NPDES permits for the County's other six WWTF come up for renewal, it is expected that PFAS monitoring and reporting requirements will be added to those as well.

231. PFAS constituents have been detected in wastewater effluent and biosolids at the Mattawoman WWTF. Effluent from the WWTF tests 7.91 ppt for PFOA, 2.80 ppt for PFOS, 8.74 ppt for PFBS, 3.61 ppt for PFHxS, 14.7 ppt for PFHxA, and 2.30 ppt for PFHpA. Similarly,

biosolids produced by Mattawoman WWTF test 3.37 ppt for PFOS, and 3.63 ppt for PFBA.

232. PFAS contaminants are inevitably also present in the County's other water infrastructure and other natural resources, including surface waters to which the County's water systems discharge. Indeed, given the mobility and persistence of PFAS compounds, these contaminants pollute the County's stormwaters and have entered the County's stormwater infrastructures, overseen and managed by the County pursuant to its stormwater ordinance, and they continually recirculate through storm events.

233. Indeed, PFAS contamination of the County's surface waters is so pervasive that the MDE has issued PFAS fish consumption advisories for popularly consumed sport fish in numerous locations throughout the County. Advisories apply to limit consumption of: Black Sea Bass or Spot caught in the Lower Chesapeake Bay and its Tributaries; Largemouth Bass, Smallmouth Bass, White Perch, and Striped Bass (aka Rockfish) caught in the Potomac River, from the Route 301 Bridge to the District of Columbia border; Northern Snakehead caught in the Mattawoman Creek; Sunfish (including Bluegill) and White Perch caught in the Potomac River from the River's mouth to Route 301; and White Perch caught either in the Middle Patuxent River or the Port Tobacco River.

234. The County has already incurred significant costs in connection with, among other things, monitoring and analyzing PFAS contamination in County resources and properties, responding to detections in drinking water and in influent, effluent and biosolids at its Mattawoman WWTF and other resources, and educating the public with respect to PFAS impacts in the water supply.

235. The County's obligations under state and federal environmental regulations to identify, monitor, assess, analyze, and prevent, mitigate, remove, or remediate PFAS

contamination of its water infrastructures and other resources and properties are substantial and impose significant and increasing costs on the County.

236. PFAS contamination attributable to AFFF threatens the health of Charles County residents and visitors, and the viability of Charles County's ecosystems, resulting in substantial impairment of public use and enjoyment of natural resources now burdened with PFAS.

237. In short, the County has suffered and will continue to suffer significant injuries as a result of Defendants' conduct.

II. CAUSES OF ACTION

FIRST CAUSE OF ACTION PUBLIC NUISANCE

238. Plaintiff realleges and reaffirms each and every allegation set forth in paragraphs 1-237 as if fully restated in this cause of action.

239. Plaintiff brings this cause of action in its governmental capacity. This claim is premised on Plaintiff's responsibility for the maintenance and operation of public drinking water, wastewater, stormwater, and other water systems, and waterbodies, and is brought solely for the public benefit.

240. Defendants designed, manufactured, distributed, marketed, and promoted PFAS-based AFFF products and/or AFFF component products in a manner that created or contributed to the creation of a public nuisance that is harmful to health and obstructs the free use of the County's water systems, waters, and public resources.

241. Defendants intentionally designed, manufactured, distributed, marketed, and sold PFAS-based AFFF products and/or AFFF component products with the knowledge that they inevitably caused environmental contamination when used as intended.

242. Defendants knew that their PFAS-based AFFF products and/or AFFF component

products would end up in the County's water systems, waterways, waterbodies, and other public resources when used as intended.

243. Defendants' conduct and the presence of PFAS contamination in Charles County water systems, waterways, waterbodies, and other public resources annoys, injures, and endangers the comfort, repose, health, and safety of members of the public.

244. Defendants' conduct and the presence of PFAS contamination in Charles County water systems, waterways, waterbodies, and other public resources interferes with and obstructs the public's free use and comfortable enjoyment of the County's waters for commerce, navigation, fishing, recreation, and aesthetic enjoyment.

245. The presence of PFAS contamination in Charles County water systems, waterways, waterbodies, and other public resources also interferes with the County's and its residents' interest in a healthy and ecologically sound environment.

246. Defendants' conduct and the presence of PFAS contamination in Charles County water systems, waterways, waterbodies, and other public resources is injurious to human, animal, and environmental health.

247. An ordinary person would be reasonably annoyed or disturbed by the presence of toxic PFAS that endanger the health of fish, animals, and humans and degrade water quality and marine habitats.

248. The seriousness of the environmental and human health risk far outweighs any social utility of Defendants' conduct in designing, manufacturing, marketing, distributing, and selling PFAS-based AFFF products and AFFF component products and concealing the dangers posed to human health and the environment.

249. The rights, interests, and inconvenience to the County and general public far

outweighs the rights, interests, and inconvenience to Defendants, which profited heavily from the manufacture and sale of PFAS-based AFFF products and AFFF component products.

250. Defendants' conduct caused and continues to cause harm to the County.

251. The County has suffered and will continue to suffer damage from Defendants' PFAS-based AFFF products and AFFF component products.

252. Defendants knew or, in the exercise of reasonable care, should have known that the design, manufacture, marketing, distribution, and sale of PFAS-based AFFF products and AFFF component products causes the type of contamination now found in the County's water systems, waterways, waterbodies, and other public resources.

253. Defendants knew that PFAS would contaminate water supplies and infrastructure, degrade marine habitats and endanger birds and animals, as a result of the ordinary and intended use of their products.

254. In addition, Defendants knew PFAS and PFAS-based products are associated with serious illnesses and cancers in humans and that humans may be exposed to PFAS through ingestion of contaminated water, fish or other foods, and/or dermal contact.

255. Defendants' conduct in designing, manufacturing, distributing, selling and promoting PFAS-based AFFF products and AFFF component products constitutes an unreasonable interference with a right common to the general public, i.e., the right to freely use the County's water systems, waterways, waterbodies, and other public resources without obstruction and health hazard.

256. Defendants are under a continuing duty to act to correct and remediate the injuries their conduct has introduced, and to warn the County and the public about the human and environmental risks posed by its PFAS products, and each day on which they fail to do so

constitutes a new injury to the County.

257. The County suffered harm of a kind different from that suffered by members of the general public, such as the costly damage to its municipal water systems, drinking water supplies, and waters, which it operates and/or maintains for the public welfare.

258. As a direct and proximate result of Defendants' creation of a public nuisance, the County has suffered, and continues to suffer, monetary damages to be proven at trial.

SECOND CAUSE OF ACTION
STRICT LIABILITY- DEFECTIVE DESIGN

259. Plaintiff realleges and reaffirms each and every allegation set forth in paragraphs 1-237 as if fully restated in this cause of action.

260. Plaintiff brings this cause of action in its governmental capacity. This claim is premised on Plaintiff's responsibility for the maintenance and operation of public drinking water, wastewater, stormwater, and other water systems, and waterbodies, and is brought solely for the public benefit.

261. Defendants' PFAS-based AFFF products and AFFF component products were not reasonably safe as designed at the time the products left Defendants' control.

262. The toxicity, solubility, volatility, persistence, bioaccumulative tendency, and inability of PFAS compounds to be contained rendered Defendants' PFAS-based AFFF products and AFFF component products unreasonably dangerous at all times.

263. Defendants' PFAS-based AFFF products and AFFF component products were unsafe as designed.

264. Due to their toxicity, persistence, volatility, solubility, and inability to be contained, among other things, Defendants knew their PFAS products were not safe at the time they were manufactured because, even when used as intended, such products would inevitably produce

significant environmental contamination.

265. Defendants knew their PFAS-based AFFF products and AFFF component products were unsafe to an extent beyond that which would be contemplated by an ordinary person because of the overwhelming seriousness of creating pervasive environmental contamination, especially of drinking water supplies and wastewaters, in Charles County and beyond.

266. Defendants designed, manufactured, distributed, sold, and promoted PFAS-based AFFF products and AFFF component products despite such knowledge in order to maximize their profits despite the known harm.

267. At all times relevant to this action, feasible alternatives to PFAS-based AFFF products were available to Defendants, which could have eliminated, reduced, or mitigated the unreasonable dangers and hazards posed by their products as designed.

268. Any utility allegedly provided by the use of PFAS-based AFFF products and AFFF component products is greatly outweighed by the risks and dangers associated with their use.

269. The PFAS-based AFFF products and AFFF component products were placed in the stream of commerce and sold by Defendants in a defective and unreasonably dangerous condition in that they were toxic, persistent, bioaccumulative, water- and fat-soluble, and volatile (i.e., inevitably escaping their ordinary and intended applications), which resulted in contamination of waterways, wildlife, drinking water supplies, wastewater, stormwater and water systems within the County.

270. The PFAS compounds released from Defendants' AFFF products reached the County's water systems, waters, and other public resources without any substantial change in condition and were in the same condition at the time of the alleged injury to the County's resources.

271. Defendants recklessly disregarded that the PFAS would reach the County's water

systems, waters, and other public resources. At a minimum, Defendants should reasonably have foreseen that PFAS released from their AFFF products would reach the County's resources and properties.

272. Contamination of the County's water systems, waters, and other resources occurred because of the defective design and manufacture of the PFAS-based AFFF products and AFFF component products.

273. Defendants' PFAS-based AFFF products and AFFF component products caused and continue to cause injury to the County.

274. Defendants are under a continuing duty to act to correct and remediate the injuries their conduct has introduced, and to warn the County and the public about the human and environmental risks posed by its PFAS products, and each day on which they fail to do so constitutes a new injury to the County.

275. The County has suffered and will continue to suffer damages in amounts to be proven at trial.

THIRD CAUSE OF ACTION
STRICT LIABILITY- FAILURE TO WARN

276. Plaintiff realleges and reaffirms each and every allegation set forth in paragraphs 1-237 as if fully restated in this count.

277. Plaintiff brings this cause of action in its governmental capacity. This claim is premised on Plaintiff's responsibility for the maintenance and operation of drinking water, wastewater, stormwater and other water systems and waterbodies, and is brought solely for the public benefit.

278. Defendants' PFAS-based AFFF products and AFFF component products were not reasonably safe because they lacked adequate warnings at the time the products left Defendants'

control.

279. At the time Defendants designed, manufactured, distributed, sold, and promoted their PFAS-based AFFF products and AFFF component products, Defendants knew that, even when used as intended, such products would inevitably produce significant environmental contamination.

280. Despite Defendants' knowledge, Defendants failed to provide adequate warnings that their PFAS-based AFFF products and AFFF component products would become a pervasive contaminant and contaminate drinking water supplies, wastewaters, waterways, and wildlife in Charles County.

281. Defendants could have warned of this certainty but intentionally concealed the certainty of contamination in order to maximize profits.

282. Defendants concealed the dangers of PFAS and PFAS-based products after they designed, manufactured, distributed, promoted, and sold them, and did not issue adequate warnings or instructions to those who had previously purchased their products, and thereafter continued to design, manufacture, distribute, promote and sell PFAS-based products without adequate warnings or instructions.

283. Without adequate warnings or instructions, Defendants' PFAS-based AFFF products and AFFF component products were unsafe to an extent beyond that which would be contemplated by an ordinary person.

284. Defendants knowingly failed to issue warnings or instructions concerning the dangers of PFAS and their PFAS-based products in the manner that a reasonably prudent manufacturer would act in the same or similar circumstances.

285. The PFAS-based AFFF products and AFFF component products were placed in the

stream of commerce and sold by Defendants in a defective and unreasonably dangerous condition in that their design failed to include warnings or instructions sufficient and necessary for the safe and proper use and disposal of the products.

286. The PFAS compounds released from Defendants' AFFF products reached the County's water systems, waters, and other public resources without any substantial change in condition and were in the same condition at the time of the alleged injury to the County's water systems, waters, and other public resources.

287. Defendants recklessly disregarded that the PFAS would reach the County's water systems, waters, and other public resources. At a minimum, Defendants should reasonably have foreseen that PFAS released from their AFFF products would reach the County's resources and properties.

288. Contamination of the County's water systems, waters, and other public resources occurred because of the defective PFAS-based AFFF products and AFFF component products, in that to be non-defective and reasonably safe for use, the products should have contained or been accompanied by a warning as to their toxicity, persistence, bioaccumulativity, and volatility.

289. Further, such contamination occurred because of Defendants' failure to adequately warn or instruct its customers as to proper disposal techniques and safeguards necessary to prevent environmental contamination resulting from the ordinary use of such products.

290. Defendants' PFAS-based AFFF products and AFFF component products caused and continue to cause injury to the County.

291. Defendants are under a continuing duty to act to correct and remediate the injuries their conduct has introduced, and to warn the County and the public about the human and environmental risks posed by its products, and each day on which they fail to do so constitutes a

new injury to the County.

292. The County has suffered and will continue to suffer damages in amounts to be proven at trial.

FOURTH CAUSE OF ACTION
TRESPASS

293. Plaintiff realleges and reaffirms each and every allegation set forth in paragraphs 1-237 as if fully restated in this count.

294. Plaintiff brings this cause of action in its governmental capacity. This claim is premised on Plaintiff's responsibility for the maintenance, operation and protection of drinking water, wastewater, stormwater, and other water systems, and waterbodies, and is brought solely for the public benefit.

295. As alleged above, Defendants designed, manufactured, distributed, marketed, and promoted PFAS-based AFFF products and AFFF component products in a manner that ensured that PFAS compounds would invade the County's drinking water, stormwater, and other water systems, waterbodies, and other public resources.

296. As a result of such invasion, the County's public water systems, waterways and waterbodies, and other public resources which the County operates and maintains for the public welfare, suffer contamination with toxic PFAS.

297. Such contamination is harmful to public health and obstructs the free use of the County's water systems, waters, and other public resources.

298. Defendants intentionally designed, manufactured, marketed, and sold PFAS-based AFFF products and AFFF component products with the knowledge that they would inevitably cause pervasive environmental contamination in Charles County.

299. Defendants knew that PFAS would likely end up in the County's water systems,

waterways, water bodies, sediments, fish and animal tissues, when used as intended.

300. The County did not consent to Defendants' intrusion into and contamination with PFAS of its water systems, waters, and other resources.

301. Defendants' conduct caused and will continue to cause injury to the County.

302. Defendants are under a continuing duty to act to correct and remediate the injuries their conduct has introduced, and to warn the County and the public about the human and environmental risks posed by its products, and each day on which they fail to do so constitutes a new injury to the County.

303. As a direct and proximate result of Defendants' trespass, the County has suffered, and continues to suffer, monetary damages to be proven at trial.

FIFTH CAUSE OF ACTION
NEGLIGENCE

304. Plaintiff realleges and reaffirms each and every allegation set forth in paragraphs 1-237 as if fully restated in this count.

305. Plaintiff brings this cause of action in its governmental capacity. This claim is premised on Plaintiff's responsibility for the maintenance and operation of public drinking water, wastewater, stormwater, and other water systems, and waterbodies, and is brought solely for the public benefit.

306. Defendants had a duty of care to protect others against unreasonable risks resulting from the use or disposal of their PFAS-based AFFF products and AFFF component products.

307. Defendants breached their duty by failing to conform to the requisite standard of care when they negligently, carelessly, and recklessly designed, manufactured, formulated, handled, stored, labeled, instructed, controlled (or failed to control), tested (or failed to test), marketed, sold and otherwise distributed toxic PFAS-based products that contaminated the

County's water systems, waters, and other public resources.

308. Defendants failed to exercise ordinary care because a reasonably careful company that learned of its product's toxicity would not manufacture that product or would warn of its toxic properties.

309. Defendants failed to exercise ordinary care because a reasonably careful company that learned that its product could not be contained during normal production and use would not continue to manufacture that product or would warn of its dangers.

310. Defendants failed to exercise ordinary care because a reasonably careful company would not continue to manufacture PFAS-based products in mass quantities and to the extent that Defendants manufactured them.

311. There is a proximate causal connection between Defendants' breach of their duty of care and the resulting harm to the County's water systems, waters, and other public resources.

312. Defendants' negligence caused and continues to cause injury to the County.

313. Defendants are under a continuing duty to act to correct and remediate the injuries their conduct has introduced, and to warn the County and the public about the human and environmental risks posed by their products, and each day on which they fail to do so constitutes a new injury to the County.

314. The County has suffered and will continue to suffer damages in amounts to be proven at trial.

PRAYER FOR RELIEF

Plaintiff prays for judgment against Defendants, jointly and severally, as follows:

1. Damages according to proof;

2. Punitive or exemplary damages sufficient to punish Defendants' use of fraudulent, malicious, or evil intent or actions and deter or warn others against commission of similar misconduct;

3. Award of the past, present, and future costs to abate the ongoing public nuisance and/or to investigate, assess, analyze, monitor, remediate, and otherwise respond to the contamination and to communicate with County residents and stakeholders regarding such contamination and response efforts, and to restore or replace environmental resources injured or impaired as a result of Defendants' conduct;

4. Declaratory judgment and injunctive relief requiring Defendants to abate and/or pay for abatement of the ongoing public nuisance, including all future abatement techniques necessary to protect the public health and the integrity and quality of public resources in Charles County;

5. Litigation costs and attorney's fees as permitted by law;

6. Pre-judgment and post-judgment interest;

7. Any other and further relief as the Court deems just, proper, and equitable.

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DEMAND FOR JURY TRIAL

Plaintiff demands a jury trial.

Respectfully submitted,

GRANT & EISENHOFER P.A.

Dated: January 23, 2025

/s/ Suzanne Sangree

Suzanne Sangree (MD No. 26130)
Kyle J. McGee (*pro hac vice* forthcoming)
Viola Vetter (*pro hac vice* forthcoming)
Jason H. Wilson (*pro hac vice* forthcoming)
123 S. Justison Street
Wilmington, DE 19801
Tel.: (302) 622-7000
Fax: (302) 622-7100
ssangree@gelaw.com
kmcgee@gelaw.com
vvetter@gelaw.com
jwilson@gelaw.com

CHARLES COUNTY ATTORNEY'S OFFICE

Edward Wesley Adams III (MD No. 26539)
Attorney for Charles County
Terrah Dews (MD No. 16128)
Associate County Attorney
200 Baltimore Street
La Plata, MD 20646
(301) 645-0555
adamsw@charlescountymd.gov
dewst@charlescountymd.gov

GORDON, WOLF & CARNEY CHTD.

Richard Gordon (MD No. 06882)
Martin Wolf (MD No. 09425)
100 W. Pennsylvania Avenue, Suite 100
Towson, MD 21204
Tel.: (410) 825-2300
Fax: (410) 825-0066
rgordon@GWCfirm.com
mwolf@GWCfirm.com

Attorneys for Plaintiff Charles County, Maryland